

ABSTRACT OF THE DISCLOSURE

A method of producing a semiconductor device which removes catalyst elements from a silicon-containing semiconductor film while maintaining the advantage of low temperature process is provided. The method comprises the steps of: forming an amorphous semiconductor film containing silicon on a glass substrate to crystallize it by using a catalyst element; selectively introducing into the amorphous semiconductor film an impurity belonging to Group 15 to form gettering regions and regions to be gettered; and causing the catalyst element in the silicon film to move to the gettering regions by heat treatment. Through the gettering process, the crystalline silicon film can be obtained in which the concentration of nickel contained therein is sufficiently reduced.

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